

It's exclusive to CU AMIGA and it's yours FREE! This month's coverdisk features the only music package you're ever going to need. CU AMIGA guides you through the intricacies of OctaMED Pro.

36

COVERDISKS

OCTAMED PRO 3.00

MED-ITATIONS

During the past couple of years, **MED** has consistently shone out as being one of the most powerful and flexible music packages available, and has gained a great deal of respect from hardened professionals and amateurs alike.

Now CU Amiga proudly offers you **OctaMED Professional 3.00**, a very major step forwards in Amiga sequencing technology!

OctaMED lets you create music using either samples, a MIDI instrument or the Amiga's internal sound generator. It also gives you a multitude of features unseen on any other music package, either commercial or Public Domain. These features offer you a combination of flexibility and user friendliness which will ensure that even the most demanding user can only gasp at the sheer power of the program.

Although the various features are very easy to use, they make the display appear rather daunting, so I'm here to guide you gently through most of them, so that you can begin creating great music with a minimum of effort.

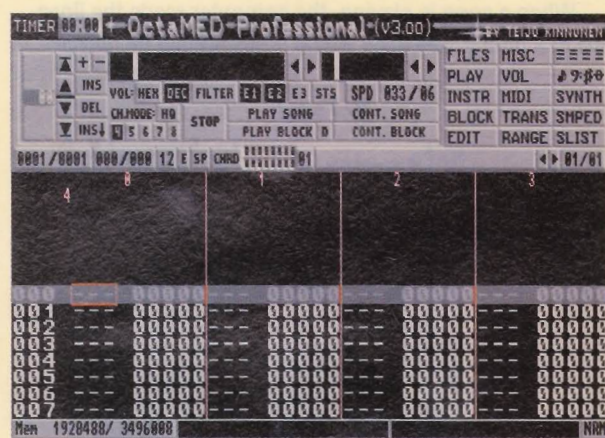
LOADING DISK 36

Insert your disk in DF0: and **OctaMed Pro** will automatically load on a 1Mb machine. If it fails to load, send the disk to CU DISK RETURNS, PC Wise, Merthyr Industrial Park, Pentreebach, Mid-Glamorgan, CF48 4DR. They will send a replacement. A helpline is also available on (0443) 693233 between 10.30 and 12.30 weekdays. Please do not call the CU offices, though, as we cannot help.

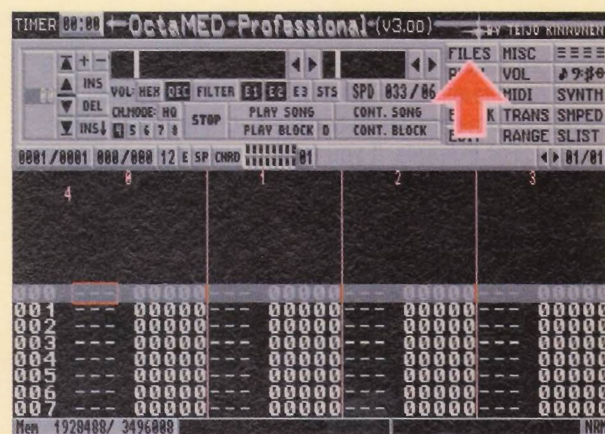
LOADING THE DEMO TUNE

Let's start by loading and playing the demo tune which is included on the disk.

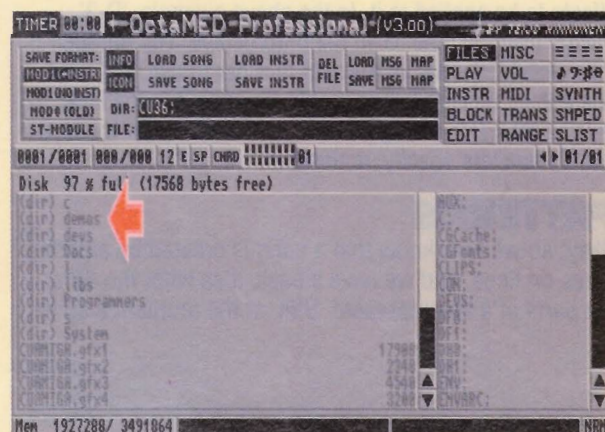
1. Load **OctaMED**.



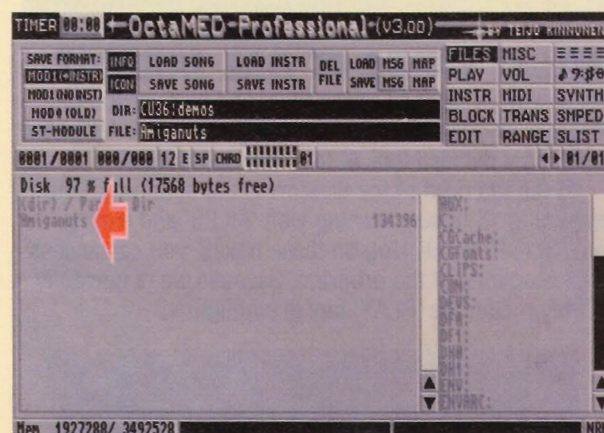
2. Click on the 'FILES' button.



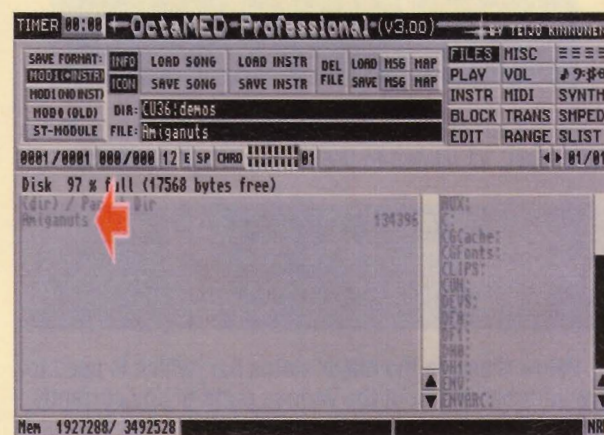
3. Click on the 'DEMOS' directory (located in the main window).



4. Click on the file called 'Amiganuts'.

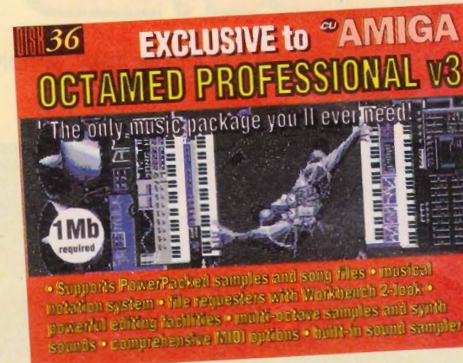
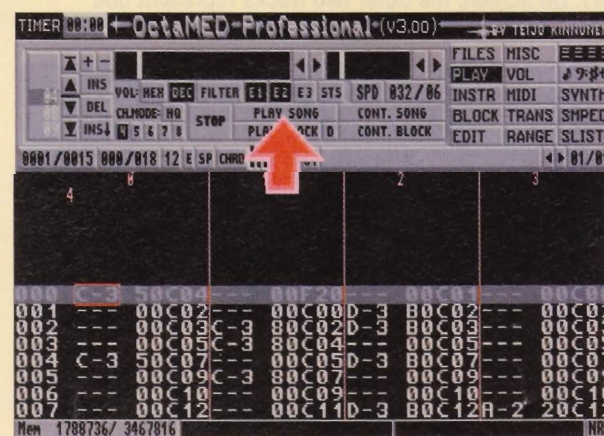


5. Go to the top of the screen and click 'LOAD SONG'.



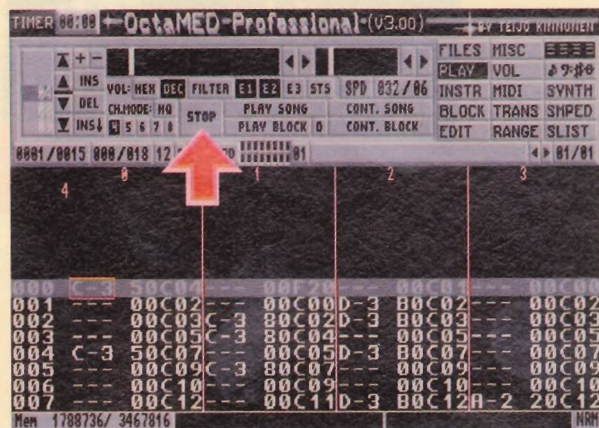
When the demo tune has loaded, you will automatically be taken to the 'Play' window.

6. Click on 'PLAY SONG' and the tune should begin to play. Numbers and letters will scroll upwards in the main window, and two sets of equalisers will start to pulse up and down (one multi-coloured, and one in shades of pink).



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7. To stop the tune at any time, simply click the 'STOP' button.



WHAT DOES IT ALL MEAN?

OK, so you've listened to the tune, and by now you're probably wondering what everything means, so let's start by taking a detailed look at the 'Play' window.

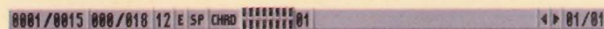
At the top right of the window is the options palette containing 15 boxes, starting with 'FILES' and ending with 'SLIST'. By clicking on these boxes, you can access other functions of the program. Because we're currently in 'Play mode', the 'PLAY' box is highlighted.



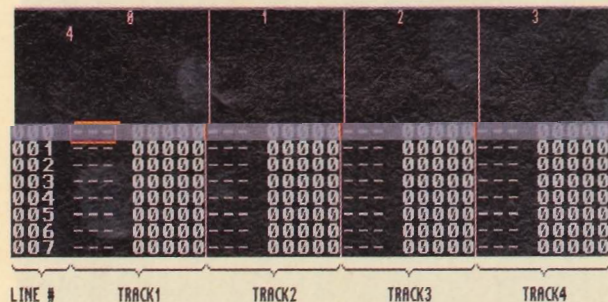
To the left of the options boxes are numerous buttons and sliders, all related to the various 'Play' functions.



Below these, is the major status bar, which is used to give information about the various parts of any currently loaded songs.



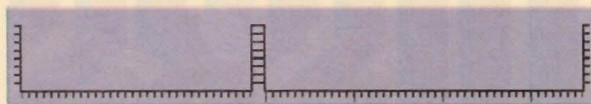
Filling up the main portion of the screen is the note display window, which shows you the notes that comprise a song. At the moment, this is split into four parts (called tracks), each separated by a narrow vertical red line. As you may know, the Amiga has four channels through which sound can be output. These are arranged into stereo pairs, with two channels being output from each speaker (if you're using a stereo amplifier or monitor). On screen, the outer two tracks represent one stereo channel, whilst the inner pair represent the other.



Below the note display window is the minor status bar, and below that is the all-important equaliser panel,

Mem 1920488 / 3496888

which is used to give graphic information about the selection of instruments and notes that are currently being played.



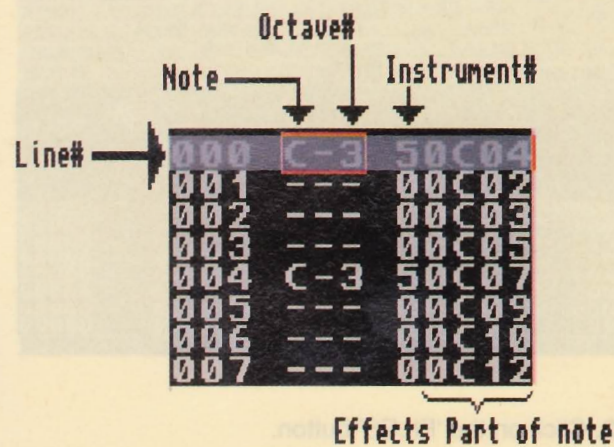
THE NOTE DISPLAY WINDOW

This is the most important part of *OctaMED*, for it is here that you will enter all of your notes, as well as information about instruments that are to be used, and any effects that are to be applied to the notes.

As I've already mentioned, this window is divided into four tracks, and as each part is essentially identical, I'll simply describe the first one which is found to the left-hand side of the window.

The tracks are divided into lines which run down the screen, and rows which run across it. The lines are numbered, and can range between 000 and 255, although in the demo song they only go as high as 063. Looking at the display, you'll notice a red outline cursor, which is used to indicate the current editing position. Using the cursor (arrow) keys, you can move this cursor around the screen. If you press the left or right arrow keys, the cursor actually moves one way or the other, but if you press the up/down keys, the cursor remains stationary and the display behind it moves.

When a song is playing, the computer reads the lines one at a time to calculate which notes should be played.



Therefore, each line represents the possible location of a note. The greater the number of lines between notes, the greater the time span between them, or the greater their duration. For example, if you enter a bass drum at line 000 and then again at line 008, the drum would sound briefly, then there would be a moderate pause until it was heard again. However, if you did the same thing with a violin, the instrument would be heard right up to the moment you played it again in line 008 because it has natural sustain.

Ignoring the line numbers, each note is represented by eight characters, and a typical one would look something like this: D-3 50C20.

You'll notice that the characters are separated into two groups, one containing three characters, and the other five. The first group represents the actual note, whilst the second represents the instrument to be used, and any effects to be applied to it. In the above example, 'D-3' means play the note 'D' in the third octave. The number '5' tells *OctaMED* what instrument number to use. The next character ('0') is not used in this example, but the letter 'C' tells *OctaMED* to change the volume to whatever the next two characters specify, in this case 20.

PATTERNS

Okay, so we now know that a song is created by entering notes on lines, and we have a basic idea what the different parts of a line represent. Still, at the moment a song

only seems to consist of 64 lines, which isn't very impressive!

Of course there's more to it than that. A set of 64 lines (in this case), is called a block, and a song may consist of many different blocks each linked together in the block play list. Why use blocks? Well it's simply a way of breaking a tune down into bite-sized pieces which are more manageable. Better yet, if a song contains sections which are repeated, you only need to create the duplicated section once, and then tell the computer to play it as needed.

Our demo contains 18 blocks, although only 13 of them are actually used in the song. The extra ones were left out because they didn't sound too good!

If you look to the top left of the screen just below the timer, you'll see the block editing options. The small tactical window containing a list of numbers in white writing, is the block play list used in this song. By using the two inner arrows beside the window, you can scroll through the entries of this list one by one. The two outer arrows (with the lines above and below them), will take you to the first and last entries in the list respectively.

If you go to the first entry in the block play list, you should see the number 04, which means that the song commences by playing block number 04. If you click on the + and - (plus and minus) signs, you can change the highlighted block number.

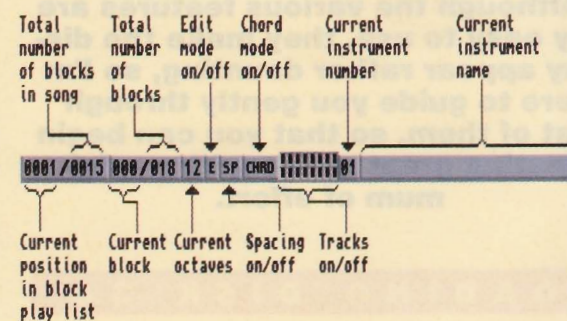
By clicking 'Ins' you can insert a new block above the highlighted one, and by clicking 'Del' you can delete the highlighted block. Click 'Ins' and the down arrow key, and you can insert the current block number - ie. the block that's being edited in the note display window.

THE STATUS BAR

Now that we understand a little about blocks, we're ready to take a closer look at the major status bar, but before we do, just load the demo song again, as described earlier on. This will then ensure that we're all looking at the same thing!

The Status Bar is divided into many parts, each of which is separated by a narrow vertical line. Each part can be altered either using the mouse, and in some cases, via the keyboard as well.

The first part displays information about the current song, and should read 0001/0015. The number 0015 tells you the total number of blocks to be played in the current song. Be careful that you don't get confused here; although our demo song plays 15 blocks, two of them are played twice (numbers six and seven), so there are actually only 13 different blocks. The number 0001 indicates the position in the block play list, so if you



to press play at this stage, *OctaMED* would start playing the first block in the list.

The next part displays information about the blocks available for inclusion in the song. Again, be careful not to get confused. 18 blocks have been defined, but not all used in the demo song. 000/018 indicates that of the 18 available blocks, number 000 is currently shown in the note display window. As soon as you press 'Play Song', this number will change to 004/018 because as you remember, our demo begins by playing block number 004.

The third part of the Status bar will contain the number 12. Despite appearances, this doesn't really represent

number twelve. It tells you which octaves are currently active on the keyboard, one and two in this case. This derives from traditional or keyboard notation in which notes are grouped twelve at a time, from one key, to the same key further up or down the keyboard. Therefore, the octave number dictates how high or low a note will sound when entered from the computer keyboard.

OctaMED Professional is extremely special, because unlike other Amiga music packages, it lets you enter notes across a range of ten octaves, more even than a piano keyboard.

The current octave number is controlled by pressing the function keys F1 to F5. Each key calls up two octaves at a time, and in internal sample mode they will call up octaves 1/2, 2/3, 3/4, 4/5 and 5/6 respectively. In MIDI mode, pressing F5 will toggle across four octaves (6/7, 7/8, 8/9 and 9/10), with the remaining octaves being shared among the other function keys.

To the right of the Octave indicator is the letter 'E' for Edit. When it's highlighted, notes can be entered either via the computer keyboard or a MIDI instrument.

Beside that, the letters 'SP' show whether or not spacing has been turned on. When selected, every key press moves the outline cursor down by the number of lines specified beside the letters 'SPC' in the Edit panel. The default value is two.

The 'CHRD' option is another one that directly affects note entry. If highlighted, you will be put into Chord entry mode, which lets you enter multiple note chords with ease. To enter a chord, simultaneously press all of its constituent notes, and *OctaMED* will enter them in order, in adjacent tracks.

Next to the chord selector there are 16 small boxes, arranged in two rows of eight. These represent the tracks that *OctaMED* can play, and by clicking on them you can mute or activate them. A black box signifies that the track is switched on, whilst a grey one is inactive and no sound will be generated. This demo song only uses four parts, and therefore only the first four boxes will have any effect.

Using samples or internal sounds *OctaMED* can play up to eight tracks at once, but via a MIDI instrument all sixteen can be used simultaneously.

The number 01 indicates the current instrument number, and its name (if it has one), will appear alongside the number. None of the instruments in our song are named, so the name section will remain blank.

The final part of the major status bar (two arrows and the number 01/01), is used in multi-module mode.

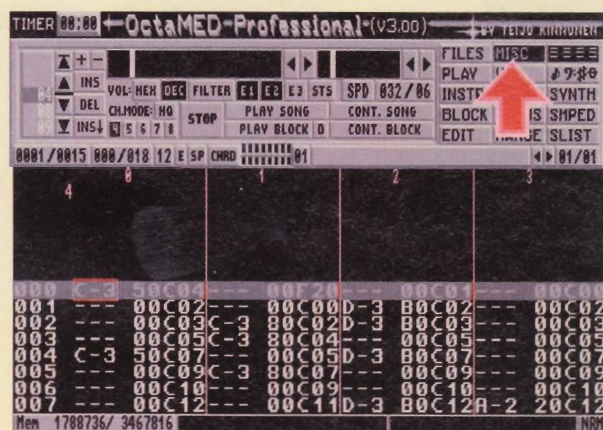
OctaMED allows you to create more than one song at a time, and the arrows let you move between the different songs. The number simply tells you which song is currently being worked upon, and the total number of songs in memory.

ENTERING NOTES

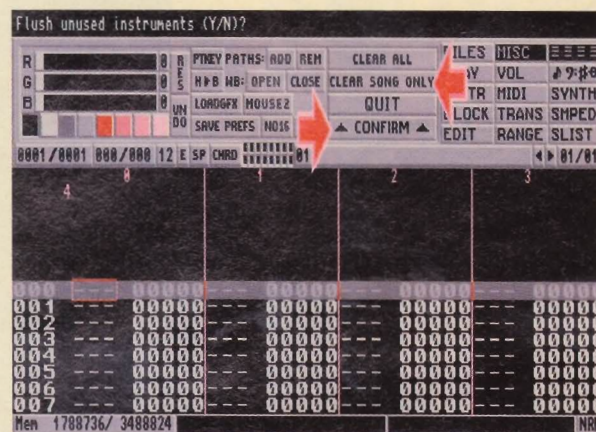
Before we start, you might like to format a blank disk ready for any saves you may wish to make...

Finished? Good! Now we're going to enter some notes to get you used to creating music, but before we can do that, we need some space. We could add some empty blocks to the end of the current song, or we could create another song using multi-module mode. However, because memory can sometimes be a problem, we're going to start from scratch.

1. Go up to the options palette and select 'MISC'.

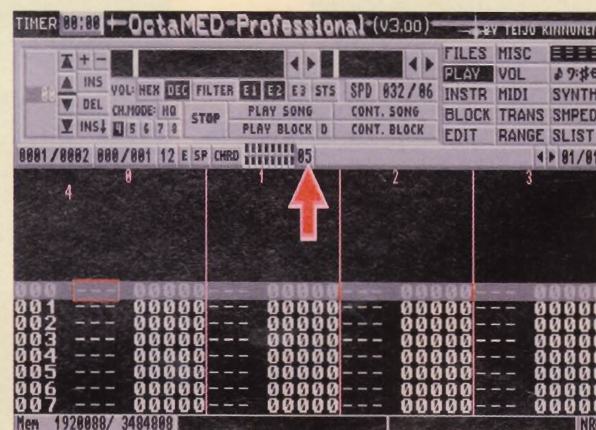


2. Select 'CLEAR SONG ONLY'. Because this is such a potentially destructive option, you must also click on the 'CONFIRM' box. A message will appear at the very top of the window saying 'Flush unused instruments (Y/N)?'. Press 'N' on the keyboard, and the stored song will be erased from memory, leaving the instruments ready for us to use.

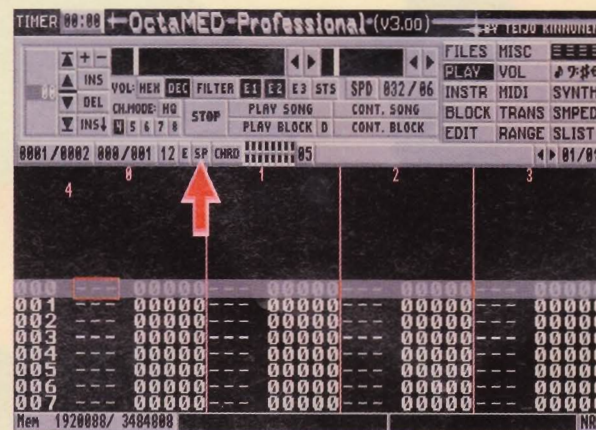


3. Go back to the options palette and select 'PLAY' to return us to the play screen.

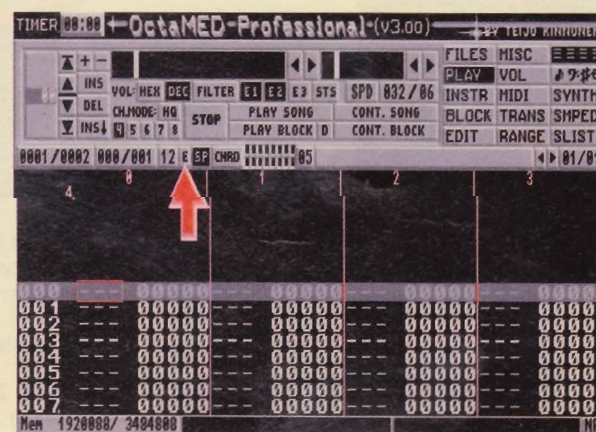
4. Using the left mousebutton, click on the second digit of the instrument number in the major status bar until instrument number 05 is selected. If you go too far, though, you can go back an instrument by clicking with the right button.



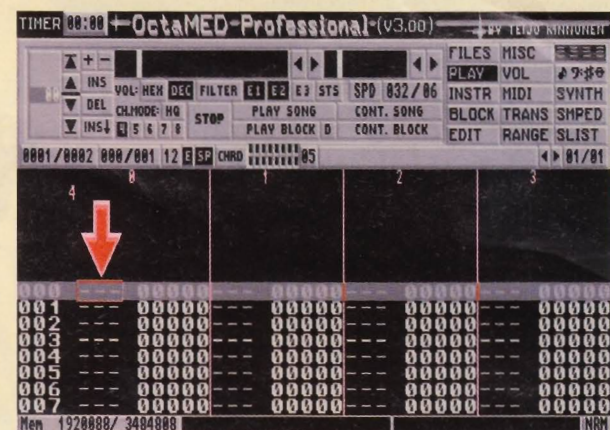
5. Select 'SP' from the major status bar to activate spacing.



6. Click on the letter 'E' in the major status bar to activate edit mode.



7. Using the cursor (arrow) keys, ensure that the red outline cursor is in the note section of track one and at line 000.



8. Press the letter Q. You should hear a bass drum sound, and the outline cursor should jump down two lines.

9. Press the down arrow on the keyboard once. The outline cursor should jump two more lines down.

10. Repeat steps 8 and 9 twice more.

11. Press the letter Q two times (you should end up on line 16).

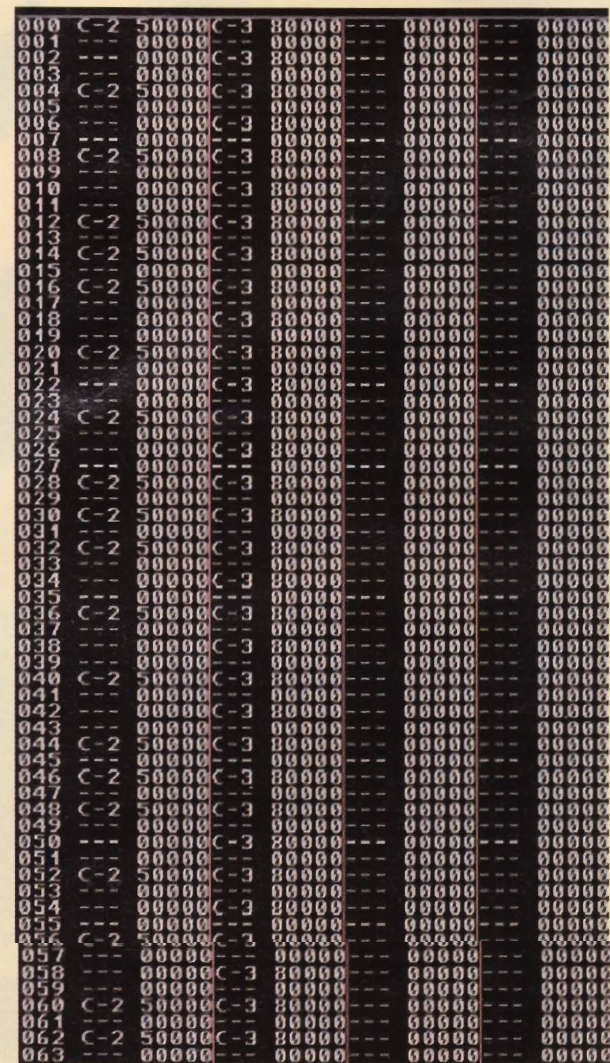
12. Repeat steps 8-11 until you return to line 000.

You've now entered the first part of your song. Press 'Play Block' to listen to it. When you've finished, move the outline cursor to the instrument section of track two, line 000.

13. Select instrument number 08.

14. Press F2 to raise the octave by one. The octave indicator in the major status bar should contain the number 23.

15. Repeatedly press the letter Q on the keyboard until the outline cursor returns to line 000. You should hear a shaker play as you press the key.



As you can hear, you've just created a very quick drum rhythm. Admittedly, it's not going to win at Montrose, but it certainly was easy to make, and it was in stereo!

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SAVING YOUR TUNE

Of course, it's all very well creating a masterpiece, but it's no good if you don't know how to save it, so let's do that now.

1. Click on 'FILES' in the options palette.
2. Insert your blank disk into any disk drive.
3. If you inserted your disk in the internal drive, click DF0: – if not click on the appropriate drive number.
4. Click in the small black window titled 'FILE'. This may still contain the name 'Amiganuts'; if so delete that, and type in the name that you want to give this file.
5. Click 'SAVE SONG' to store your drum track on disk.

Now let's look at some more features of the program...

CHANGING THE TEMPO

Return to the Play screen where you'll find your drum rhythm just as you left it. If you look at the top of the screen, just below the words 'Octamed Professional' you'll see two sliders, with arrows beside them. These are the primary and secondary tempo controllers, and are used to set the rate at which the song plays. Most of the time, you will only ever need to adjust the primary tempo, so I'll just describe that for now.

The primary tempo is indicated by the larger of the two sliders, and its exact setting is shown by the left-hand number beside the letters 'SPD'. Its default is 033. If you click on the slider and drag it to the extreme left or right, you'll notice that the tempo ranges between 0 and 240. The higher the number, the faster the song will play. Because *OctaMED* is also compatible with *Soundtracker* and *Protracker* modules, tempos in the range 0-10 are reserved for them. Therefore, the actual tempo range for *OctaMED* songs is 11-240. Move the slider across until the tempo reads 41, then click on 'Play Block' to hear the difference it's made. As you can hear, even that small

change has made quite a big difference to the speed of the song.

The Primary tempo slider is useful for changing the tempo of a song whilst you're testing out different speeds, but if you want to change the tempo of a song automatically whilst it's playing, you'll need to add it to the notes.

Here's how to do it:

1. Go to line 000 of track 1.
2. Move the red outline cursor to the right until it surrounds the sixth character.
3. Press F
4. Move the outline cursor to the seventh character of the same line and press 2.

You have now set the tempo of the song to 20.

However, because *OctaMED* uses hexadecimal for tempo entries, 20 is actually equivalent to a speed of 32.

For example: $20 = 2 \cdot 10$

$$(2 \times 16 = 32) + (0 \times 1 = 0) = 32$$

If you now go to line 32, and repeat steps 2-4 above, simply substituting a tempo of 4 instead of 2, you'll hear the difference it makes when you click 'Play Block'.

ADDING EFFECTS

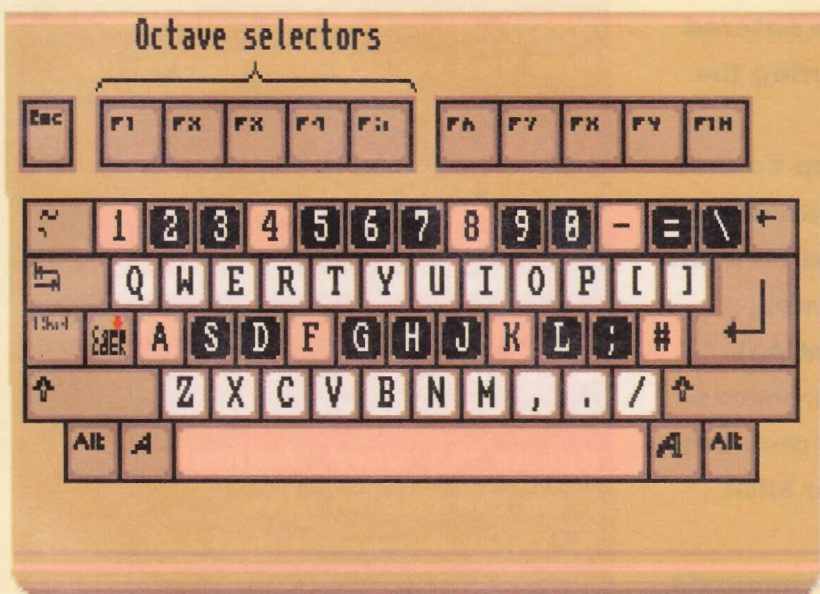
By setting the tempo of our tune, we used the effects part of the note. The letter F, when followed by a two digit hexadecimal number, means change the tempo. Similarly, there are lots of other commands that can be used in the same position as we used the F, to give different instructions to *OctaMED*.

Apart from tempo, the second most important command, is the letter C, which is used to specify the volume of an instrument. The possible range is between 0 and 64, with 64 being the loudest. For example, D-3 50C04 means play note D using a very quiet rate, in octave 3

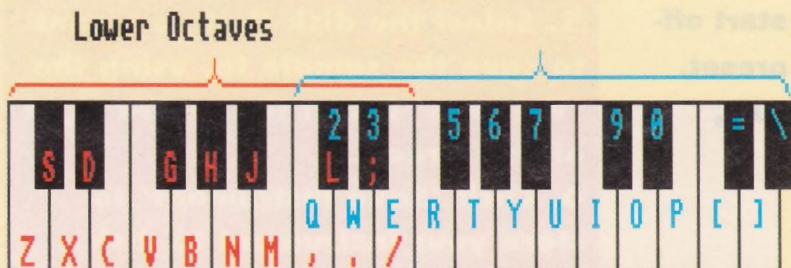
THE KEYBOARD LAYOUT

THE KEYBOARD LAYOUT When you're entering notes, *OctaMED* configures the Amiga keyboard so that it represents a two and a half octave piano keyboard.

The letter 'Z' represents the note of C natural, and the value of the computer keys progress naturally. Therefore, 'X' = D



Upper Octaves



Upper Octaves

Lower Octaves

Because *OctaMED* supports multiple octaves, the two rows of keys beginning with the letter 'Q' and the number '2', also represent a piano keyboard, although one octave higher than those of the bottom two rows of keys.

Musicians and astute readers may have already calculated the fact that there is a slight overlap in the notes produced by the computer keys. In fact, on the bottom set of keys, everything beyond the letters 'M' and 'K' is duplicated in the first few keys of the upper octave. I.e., 'Q' = 'Q', 'L' = '2', etc.

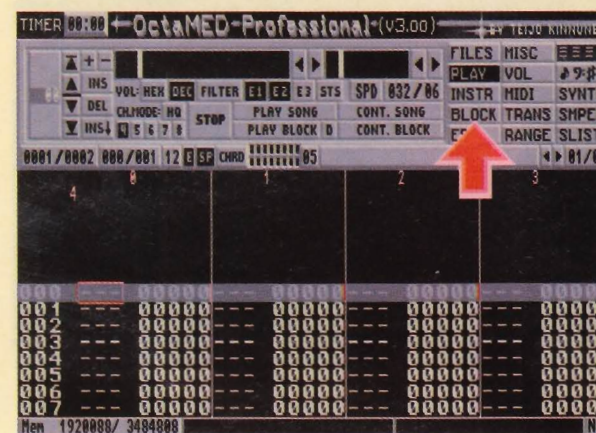
using instrument 5.

There are many other commands, including slides, pitch-bends, arpeggios and more. We'll leave the subject of special effects for another article.

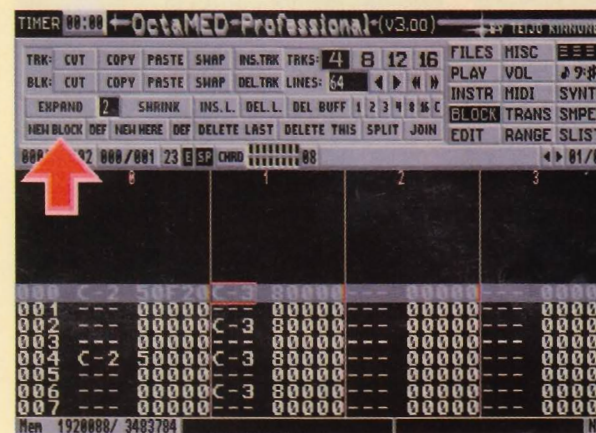
ADDING BLOCKS

Returning to our song, it would be rather short if it only consisted of a single block, so let's add another one.

1. Go to the note palette and click 'BLOCK'.

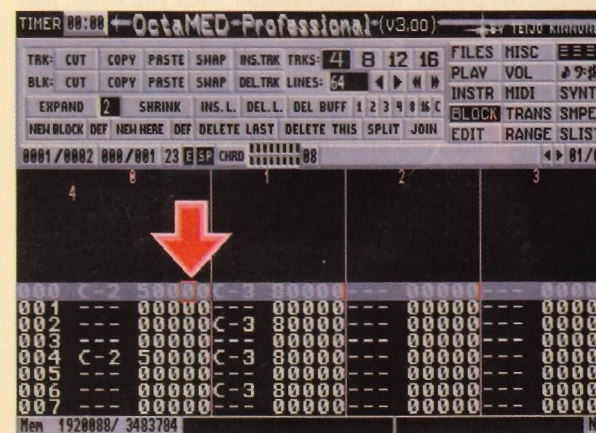


2. Click once on 'NEW BLOCK' (at the left hand side of the block options). You should see the total number of blocks in the major status bar increase from 000 to 001.

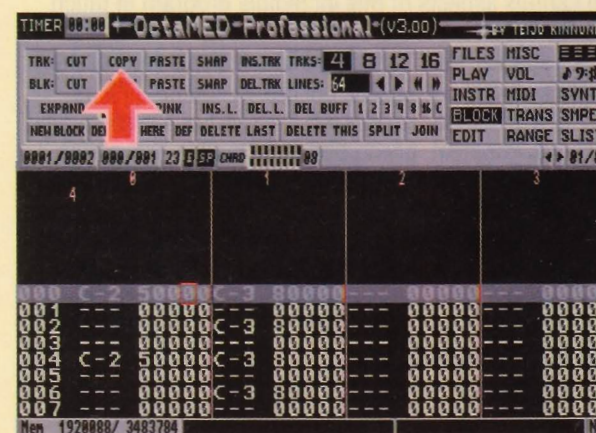


Now we're going to copy the drum tracks that we defined earlier to the new block.

3. Move the outline cursor so that it's anywhere in track one.

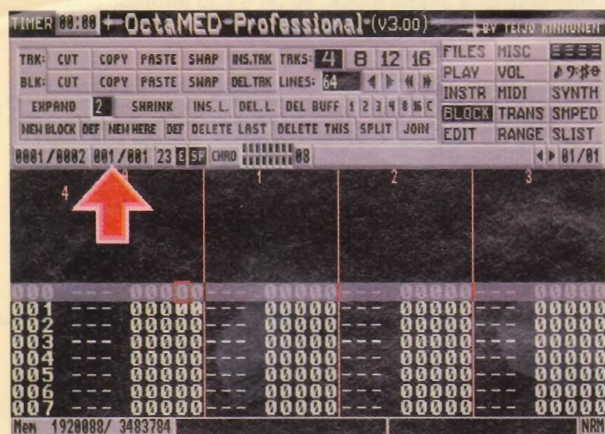


4. At the top of the block options screen, click on 'TBK: COPY'

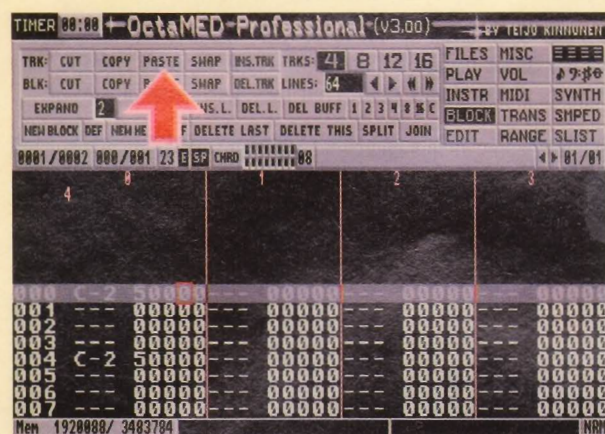


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5. Using the left mousebutton, click on the third digit of the block information indicator (in the major status bar). The indicator should now read 001/001.



6. Click 'TRK: PASTE' to copy the first drum track into the first track of block two.



7. Using the right mouse-button, click on the third digit of the block information indicator (in the major status bar). The indicator should now read 000/001.

8. Move the cursor to track two, and repeat steps 4-6. We've just created the second block of our song, but at the moment it's identical to the first one, so select instrument 07, go to track 3 and enter a few notes starting at line 000 so that we can hear the difference between the blocks. It doesn't matter what you enter, just press a few keys.

Click 'PLAY' in the options palette. Now we can edit the block play list so that it automatically plays both blocks. At the moment it only contains the number 00, which represents our first block. Click the inner down arrow beside the play list, and the highlighted cursor should be on an empty space below the number 00. Click 'INSI' and the current block number will be inserted under the cursor.

If you click 'PLAY SONG', OctaMED will play both patterns, one after the other.

CONCLUSION

Well, by now you should understand the basics of creating a song using OctaMED. It's not particularly difficult, but it can certainly be a very rewarding and enjoyable experience. Over the coming months, we'll be going into the various aspects of this incredible program in much greater detail.

Of course, we'll be taking a much closer look at the options palette and special effects. In addition, I'll be describing how to use OctaMED as part of a professional MIDI environment, giving tips on sampling and professional song creation. We'll even look at how to convert traditional sheet music onto the program, so that you can enjoy your classical or modern masterpieces anytime you like! We'll also be giving away a great selection of free samples to increase the diversity of your creations.

Order your next copy of CU now, or a much better idea is to subscribe!

WHAT'S NEW?

OctaMED 3.00 contains numerous advances over version two and truly deserves its 'Professional' label.

HERE'S A QUICK SUMMARY OF THE NEW FEATURES:

- 1 A greatly enhanced file requester.
- 2 An extra command digit to increase the number of effects that can be applied to notes.
- 3 Extra status display showing available memory, and letting you name each block in a song.
- 4 High quality play option in eight-track internal sample mode requires a 68020 processor, but improves sound quality.
- 5 Tempo can now be set in Beats per Minute (BPM), for commercial music compatibility.
- 6 Instrument fine tune lets you tune instruments in steps far smaller than a semi-tone.
- 7 Now supports ten octaves in midi mode, six in normal mode.
- 8 Note by note preview mode.
- 9 Alternate key-maps, for easier and faster song editing.
- 10 Mouse can be used to move editing cursor.
- 11 Automatic note echo function.
- 12 Automatic transitions can be generated when creating synth-sounds, resulting in smoother sounding instruments.
- 13 Freehand draw when editing IFF or raw samples.
- 14 Better support when using a MIDI controller keyboard which is separate from the sound module - immediately re-transmits note data when entered from a keyboard, thus triggering the sound module.
- 15 Supports a MIDI input map so that MIDI instrument can be programmed to perform multiple functions on a single key press (ie. enter volume, instrument or tempo information).
- 16 Supports MIDI message transmission so that you can control previously unsupported features of your MIDI instrument.
- 17 17 new player (effects) commands, including slide and fade, tremolo, vibrato and fade, set sample start offset, block loop, change MIDI preset.
- 18 Additional keyboard shortcuts, including Play Block.

HOW TO SAVE INSTRUMENTS

Because OctaMED Pro is such an incredibly large program, we were only able to include a selection of synthsound instruments and a superb demo tune. If you don't have any more samples of your own just yet, don't worry, as the demo tune has 16 that you can easily remove and use for yourself.

Here's how to do it:

1. Load the demo tune.
2. Select the instrument number that you require (ranging from 01 to 0F).
3. Go to the Files menu and delete the word 'Amiganuts' from the File window.
4. Enter the name that you want the sample saved as in the File window.
5. Select the disk that you want to save the sample to, using the 'Volumes' list at the centre right of the screen.
6. Click 'Save Instrument' to store your instrument to disk.